A developmental view of microRNA function.

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Authors: Yong Zhao, Deepak Srivastava

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Public Summary:

Scientific Abstract:
MicroRNAs (miRNAs) are genomically encoded small non-coding RNAs that regulate flow of genetic information by controlling translation or stability of mRNAs. Recent recognition that many miRNAs are expressed in a tissue-specific manner during development of organisms, from worms to humans, has revealed a novel mechanism by which the proteome is regulated during the dynamic events of cell-lineage decisions and morphogenesis. Advances in the understanding of miRNA biogenesis, target recognition and participation in regulatory networks demonstrate a role for miRNAs in lineage decisions of progenitor cells and organogenesis. Future discoveries in this area are likely to reveal developmental-regulation and disease mechanisms related to miRNAs.